

ABSTRACT

Methods for eliminating inadvertent power drain from an electrical power source coupled to a starter-generator. In one embodiment, a multiple-position key switch and bypass rectifier configuration is implemented. The multiple-position key switch is coupled to the power source. The key switch's start terminal is coupled to a solenoid for starting, while a bypass rectifier is coupled in parallel to the solenoid to provide a circuit path for recharging the electrical power source. When either a closed-in-neutral gear shift switch is open or the key switch is in a run/accessory power position, the solenoid is de-energized. This leaves the bypass rectifier as the remaining circuit path through which the power source is recharged. The bypass rectifier allows current flow in a single direction, thereby preventing discharge of the power source.